

STATE OF VERMONT  
PUBLIC SERVICE BOARD

Docket No. 5270-ORLN-1

Investigation into Least-Cost ) Hearing at  
Investments, Energy Efficiency, ) Montpelier, Vermont  
Conservation and Management of ) November 17, 1995  
Demand for Energy In Re: Village )  
of Orleans Electric Department's )  
Integrated Resource Plan filing )

Order entered: May 28, 1996

PRESENT: Sandra A. Waldstein, Hearing Officer

APPEARANCES: William B. Piper, Esq.  
Primmer & Piper, P.C.  
for Village of Orleans Electric Department  
  
Laura Scanlan Beliveau, Esq.  
for the Vermont Department of Public Service

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## I. INTRODUCTION

This Proposal for Decision ("PFD") recommends that the Public Service Board ("Board") approve the Integrated Resource Plan ("IRP") of the Village of Orleans Electric Department ("Orleans") pursuant to a Stipulation in this Docket filed by Orleans and the Department of Public Service ("Department" or "DPS"). As filed and updated, Orleans anticipates peak demand savings of 104.5 kilowatts ("KW") and energy savings of 1,214 megawatt hours ("MWHs") through the year 2,000. Orleans anticipates that cost-effective demand-side management ("DSM") programs will allow the utility and its customers to reduce energy consumption while providing positive net societal benefits. The parties agree that Orleans' IRP, as modified by the Stipulation, meets the requirements of 30 V.S.A. § 218c and complies with the Board's Orders in Docket No. 5270 and the DPS's Twenty-Year Plan. I recommend that the Board approve this IRP subject to Orleans' compliance with the conditions and agreements incorporated in the Stipulation.

## II. PROCEDURAL HISTORY

Orleans filed this IRP on February 24, 1995. This filing was an update to Orleans' IRP originally filed on June 18, 1991. Revisions were made to Orleans' IRP over the interim period as the DPS and Orleans had informal discussions regarding Orleans' IRP.

Status conferences were held on February 16, 1995, and September 7, 1995, at which time a schedule was set for proceeding in this Docket. At the status conference on September 7, 1995, Orleans, the DPS, and the three other utilities represented by the Metrix, Inc. consulting firm agreed to hold consolidated technical hearings in their respective IRP Dockets.<sup>1</sup> Prior to the technical hearing, the parties prefiled testimony on several issues. However, the parties filed a draft stipulation prior to the technical hearing, and a fully executed Stipulation at that hearing, resolving all outstanding issues regarding Orleans' IRP. An evidentiary hearing on the Stipulation was held on November 17, 1995.

On December 8, 1995, the parties filed waivers of the right granted under 3 V.S.A.

§ 811 to comment or present argument on the proposal for decision in this Docket.

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1. The other utilities represented by Metrix, Inc., include Barton Village, Inc. Electric Department, Village of Johnson Electric Department, and Town of Readsboro Electric Department.

### III. FINDINGS OF FACT

#### A. Load Forecast

1. Orleans currently has 680 customers, 606 of whom are residential customers.<sup>2</sup>

2. Orleans' load is primarily industrial, this sector accounting for approximately 64 percent of sales in 1993. Residential loads contribute another 25 percent, and commercial loads 9 percent. Department pf. at 3.

3. Orleans has one large industrial customer, the Ethan Allen manufacturing plant. Exh. ORLN A. at 4.

4. Orleans projects a peak of 4,904 KW and energy consumption of 18,492 MWH in year 2,000. Exh. ORLN A. at 3-9.

5. Orleans has agreed to make the following improvements to its forecasting methodology for its next IRP:

- (a) Orleans will utilize more refined load forecasting techniques, which include the use of appropriate econometric or end-use methods and uncertainty analyses;
- (b) Orleans will avoid using forecast methods that are simply extrapolation techniques;
- (c) Orleans will take into account current and future developments, such as appliance efficiency standards and economic development, that are highly likely to affect electricity demand, but that are not fully reflected in historical data;
- (d) Orleans will provide more extensive documentation and contextual information to support the forecast, including but not limited to documentation which explains the methodology, analyses, basic assumptions, data inputs, and uncertainty factors related to the load forecast;
- (e) Orleans will conform the load forecast to the requirements of the *Vermont Twenty-Year Electric Plan* (December, 1994) regarding Integrated Resource Planning Guidelines (Chapter 8).

Stip. at ¶ 2.

#### B. Supply Resources

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2. Pursuant to 3 V.S.A. § 810(4), I take official notice of Orleans's 1994 Annual Report, filed with the Board on 5/16/95.

6. Orleans has agreed to the revised assumptions and methodologies described in Attachment I to the Stipulation and will submit a Supply Analysis reflecting the new assumptions and methodologies as a compliance filing within sixty days of the date of the Stipulation, by December 25, 1995.<sup>3</sup> Stip. at ¶ 4.

7. Orleans will develop values for Transmission and Distribution ("T&D") avoided costs to be submitted as a compliance filing within sixty days of the date of the Stipulation, by December 25, 1995.<sup>4</sup> Stip. at ¶ 5.

8. Orleans will calculate new line loss adjustments for the five costing periods: summer, winter, peak, off-peak, and capacity. These calculations will be submitted as a compliance filing within sixty days of the date of the Stipulation, by December 25, 1995.<sup>5</sup> Stip. at ¶ 6.

9. Orleans has agreed that it will not use its current IRP forecast except to justify cost-effective restructuring of its existing power supply. Stip. at ¶ 3.

10. Orleans will work with the DPS to determine an appropriate proxy set of avoided costs for DSM and T&D investment screening. Stip. at ¶ 3.

#### C. Demand-Side Management

11. Orleans estimates that cost-effective DSM programs will result in savings to Orleans' ratepayers of 104.5 KW and 295 MWHs in year 2,000, or 2 percent of anticipated peak load and 1.5 percent of anticipated energy requirements. Finding 4 above; Orleans filing, 4/12/96.

12. Orleans agrees to design or adopt and implement programs, as outlined below, that contain strategies to acquire cost-effective DSM resources available from commercial remodeling and equipment replacement, residential high-use customer fuel-switching, and low-income high-use residential customers. Stip. at ¶ 15.

13. Orleans has agreed to implement the DSM program designs contained in its IRP with the modifications identified for each program below using the revised avoided costs developed pursuant to Paragraph 4 of the Stipulation. Stip. at ¶ 7.

14. The cost-effectiveness of Orleans' proposed DSM programs cannot be determined at this time. The DPS states that there are methodological errors in Orleans' compliance filings which prevent a precise calculation of cost-effectiveness. DPS letter of 3/27/96.

#### (i.) Residential Direct Install (Moderate Use) Program

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3. Orleans submitted this filing on December 26, 1995.

4. Orleans submitted this filing on December 26, 1995.

5. Orleans submitted this filing on December 26, 1995.

15. Orleans will provide four cost-effective compact florescent bulbs at each site for \$1.00 per bulb and will offer a 50% incentive for all additional cost-effective bulbs. Stip. at ¶ 8a.

16. Orleans has agreed to use a three-hour burn time as a threshold for recommending the installation of compact florescent bulbs. Orleans filing of 1/18/96.

17. Program implementation will be completed by January 1, 1997, or Orleans will submit a compliance filing on that date explaining the reasons for not meeting the deadline. Stip. at ¶ 8a.

(ii.) Residential New Construction

18. Orleans agrees to implement the program design contained in the IRP. Stip. at ¶ 9.

19. Orleans has agreed that if its residential new construction program is not successful in reaching a 50% market penetration of new residential connections and electrical efficiency savings as of January 1, 1997, it will implement the assessment fee-type residential new construction program design being implemented by Washington Electric Cooperative, Inc. ("WEC"), provided that the WEC program in 1995 shows a 50% market penetration and electrical efficiency savings from its new residential hookups. Stip. at ¶ 9.

(iii.) Small Commercial Retrofit Program

20. Orleans has agreed not to implement the program design for this program that is contained in its IRP. Stip. at ¶ 10.

21. Orleans will submit a commercial equipment replacement and remodeling program design by December 15, 1995, that meets the terms outlined in the Stipulation.<sup>6</sup> Stip. at ¶ 10.

(iv.) Farm Program

22. Orleans has agreed to use a single track approach to provide comprehensive audits to all eligible farm customers and will not require customers who receive audits to pay for those audits, even if they choose not to install any of the recommended measures. Stip. at ¶ 11.

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6. Orleans submitted this filing on December 18, 1995.

23. Orleans has agreed to develop and use the appropriate avoided costs, externalities and risk adjustments and T&D losses for each of the four costing periods and incorporate them into the field screening tool used by the farm program implementation contractor. Stip. at ¶ 12.

24. Orleans has agreed to complete the program for its five dairy farm customers by December 31, 1996. Stip. at ¶ 13.

(v.) Commercial New Construction

25. Orleans has agreed to use the program contained in its IRP until the statewide program design for both Act 250 and non-Act 250 projects is developed, at which time Orleans agrees to consider adopting and implementing the statewide program. Stip. at ¶ 14.

(vi.) Residential High-Use

26. Orleans has agreed to adopt and implement a residential fuel-switching program with the same incentive structure and services approved for the Town of Hardwick in Docket 5270-HDWK-1. Stip. at ¶ 16a.

27. Orleans agrees that program implementation will be completed by January 1, 1997, or Orleans will submit a compliance filing on that date explaining the reasons for not completing program implementation and providing a revised date for completion. *Id.*

28. Orleans has agreed to provide efficiency improvements for its low-income residential high-use customers through an agreement with the local weatherization assistance program, Northeast Kingdom Organization ("NEKO"). Orleans will reimburse the agency and may apply for a rebate from the Weatherization Trust Fund pursuant to 33 V.S.A.

§ 2503. Stip. at ¶ 16b.

(vii.) Commercial Remodeling and Equipment Replacement

29. Orleans has agreed to adopt and implement a program similar to the program approved for the Village of Hyde Park Electric Department in Docket 5270-HDPK-1. Stip. at ¶ 17.

30. Orleans agrees to submit its program design by December 15, 1995<sup>7</sup>, and begin implementation starting January 1, 1996. *Id.*

31. Orleans agrees that when a statewide program is designed and implemented in Vermont, Orleans will consider adopting and implementing the statewide program. *Id.*

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7. Orleans submitted this filing on December 18, 1995.

(viii.) Residential "Lost Opportunity" Program

32. Orleans has agreed that when a statewide program design is complete, Orleans will consider adopting and implementing it. Stip. at ¶ 18.

(ix.) Large Commercial and Industrial Program

33. Orleans has agreed to conduct a comprehensive evaluation of DSM potential at the Ethan Allen Plant and to develop a plan to acquire these resources. Stip. at ¶ 19.

(x.) Other DSM Matters

34. Orleans has agreed to provide a schedule of DSM program implementation that includes at least annual program budgets and energy and capacity impacts expected from the program. Orleans will submit this schedule by December 15, 1995.<sup>8</sup> Stip. at ¶ 20.

35. Orleans has agreed to submit a compliance filing containing all required DSM program modifications sixty days following an Order in this Docket.<sup>9</sup> Stip. at ¶ 21.

36. Orleans has agreed that the issue of load impact of DSM resources beyond the proposed DSM programs may be reopened in any applicable proceeding under 30 V.S.A. § 248. Stip. at ¶ 22.

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8. Orleans submitted this filing on December 26, 1995.

9. Orleans submitted this filing on January 18, 1996.



#### D. Transmission and Distribution

37. Orleans has agreed that a completed T&D study and T&D plan are critical components of the IRP process and that the T&D study and T&D plan must be completed according to the schedule agreed to below. Stip. at ¶ 23.

38. Orleans has agreed to perform a T&D study in accordance with the guidelines contained in Attachment II to the Stipulation and to implement an equipment acquisition program conforming to the spreadsheet as Attachment III to the Stipulation, with appropriate utility-specific factors inserted. Stip. at ¶ 24.

39. Orleans will submit as a compliance filing by January 1, 1996, a schedule and budget for the T&D study including a contract between Orleans and its T&D consultant.<sup>10</sup> Stip. at ¶ 24.

40. Orleans has agreed to complete the T&D study and submit it to the Board as a compliance filing by no later than June 30, 1996. Stip. at ¶ 25.

41. Orleans has agreed to submit as a compliance filing by September 1, 1996, a T&D plan and schedule detailing the implementation of the recommendations contained in the completed T&D study. Stip. at ¶ 26.

#### E. Other Findings

42. Orleans' IRP as filed, together with the Stipulation, represents a least-cost plan for the acquisition of energy-efficiency resources for Orleans' customers, as required by 30 V.S.A. § 218c. Tr. 11/21/95 at 35, 37.

43. The Stipulation filed by the parties is in the best interests of ratepayers and is a necessary part of the fulfillment of the requirements for approval of this IRP. Tr. 11/21/95 at 37.

### IV. DISCUSSION

Orleans is one of four first-round IRPs to be settled on a consolidated basis. The Department and Orleans have agreed on certain modifications to Orleans' IRP and have agreed that, with those modifications, Orleans' IRP should be approved by the Board as meeting the statutory criteria of 30 V.S.A. § 218c.

Since Orleans filed its first proposed IRP in June, 1991, significant experience has been gained regarding the appropriate design for DSM programs to ensure that customers have an opportunity to implement a comprehensive package of cost-effective energy efficiency measures. Orleans' current proposed IRP, as modified by the parties' Stipulation, incorporates many of the analytical methodologies and

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10. Orleans has not made this filing to date.

program designs adopted by other Vermont utilities. Orleans has met most of the compliance filing deadlines established in the Stipulation. Due to the start of program implementation in January 1996, Orleans filed its descriptions of DSM program modifications well ahead of the schedule called for in the Stipulation. However, in a letter filed on March 27, 1996, the DPS states that there are several flaws in the methodology that Orleans used to screen its largest (in terms of energy and dollar savings) DSM program, residential fuel-switching. The DPS maintains that the program has positive net societal benefits when screened properly.

Due to the large impact that the residential fuel-switching program has on Orleans' overall savings and ultimate cost-effectiveness of all its DSM programs, I recommend that the Board require Orleans to make an additional compliance filing to resolve the concerns identified in the DPS's letter. DPS letter of 3/27/96; Orleans filings of 12/26/95, 4/12/96. Orleans should make that filing within two weeks of the date of this Order. As specified in the parties' Stipulation, the DPS shall file comments on Orleans' filing and may request that the Board resolve any disputes. *See* Stip. at ¶ 28.

I conclude, based on the evidence in this Docket, that Orleans' IRP, as modified by the parties' Stipulation, is a least-cost plan that will acquire all cost-effective DSM pursuant to 30 V.S.A. § 218c and the Board's Order in Docket No. 5270.

I recommend that the Board approve Orleans' IRP as modified by the parties' Stipulation. In addition, the Board should leave this Docket open until Orleans has made all its compliance filings and any concerns raised by the DPS with those filings are resolved.

The foregoing is hereby reported to the Public Service Board in accordance with the provisions of 30 V.S.A. § 8. Although the parties have waived their right to comment on this Proposal for Decision in accordance with 3 V.S.A. § 811, this PFD has been served on

all parties with an opportunity for them to file comments and request oral argument before the Board.<sup>11</sup>

DATED at Montpelier, Vermont, this 28th day of May, 1996.

s/Sandra A. Waldstein

Sandra A. Waldstein

Hearing Officer

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11. On May 10, 1996, the DPS filed comments, but did not request oral argument. Orleans did not make any filing. I have modified the PFD to accurately reflect the DPS's letter of 3/27/96 which states that changes to Orleans' screening methodology for residential fuel-switching programs "may" result in the programs screening with net societal benefits.

**V. ORDER**

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that:

1. The findings, conclusions and recommendations of the Hearing Officer are hereby adopted.
2. Orleans' IRP is approved as modified by the parties' Stipulation.
3. Orleans shall submit a compliance filing regarding its Residential Direct Install Program by January 1, 1997.
4. Orleans shall submit a compliance filing by January 1, 1997, regarding the implementation of its Residential High-Use Program.
5. Orleans shall file a completed T&D study, as a compliance filing, by June 30, 1996.
6. Orleans shall file as a compliance filing a schedule detailing implementation of the recommendations in its T&D study, by September 1, 1996.
7. This Docket shall remain open until all the above compliance filings have been made, the DPS has filed comments on those filings, and any disputed issues are resolved.
8. Orleans shall file annual DSM reports on April first of each year beginning in 1996.
9. Orleans shall file its next IRP on or before April 10, 1998.

DATED at Montpelier, Vermont, this 28th day of May, 1996.

<u>s/Richard H. Cowart</u>	)	
	)	PUBLIC SERVICE
<u>s/Suzanne D. Rude</u>	)	
	)	BOARD
	)	
<u>s/David C. Coen</u>	)	OF VERMONT

OFFICE OF THE CLERK

FILED: MAY 28, 1996

ATTEST: s/Susan M. Hudson  
Clerk of the Board

*NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board of any technical errors, in order that any necessary corrections may be made.*

*Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.*